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APPLICATION NO. FILING DATE		DATE FIRST NAMED INVENTOR		CONFIRMATION NO.	
10/600,831 06/23/2003		Toshiki Taguchi	Q76239	6941	
23373 7590 07/19/2004				EXAM	INER
SUGHRUE				SHAH, M	ANISH S
2100 PENN SUITE 800	SYLVAN	NIA AVENUE, N.W.		ART UNIT	PAPER NUMBER
WASHING	ron, do	20037		2853	* · · · ·

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

TECHNOLOGY CENTER 2800

	Application No.	Applicant(s)							
Office Action Summans	10/600,831	TAGUCHI ET AL.							
Office Action Summary	Examiner	Art Unit							
	Manish S. Shah	2853							
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address							
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).									
Status									
1) Responsive to communication(s) filed on	_•								
2a) This action is FINAL . 2b) ⊠ This	action is non-final.								
3)☐ Since this application is in condition for allowar									
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.							
Disposition of Claims									
4)⊠ Claim(s) <u>1-10</u> is/are pending in the application.									
4a) Of the above claim(s) is/are withdrav	vn from consideration.								
5) Claim(s) is/are allowed.									
6)⊠ Claim(s) <u>1-10</u> is/are rejected.									
7) Claim(s) is/are objected to.									
8) Claim(s) are subject to restriction and/or	r election requirement.								
Application Papers									
9)☐ The specification is objected to by the Examine	r.								
10)☐ The drawing(s) filed on is/are: a)☐ acce	epted or b) \square objected to by the $\mathfrak l$	Examiner.							
Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	e 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correct		•							
11)☐ The oath or declaration is objected to by the Ex	aminer. Note the attached Office	Action or form P1O-152.							
Priority under 35 U.S.C. § 119									
12)⊠ Acknowledgment is made of a claim for foreign a)⊠ All b)□ Some * c)□ None of:	priority under 35 U.S.C. § 119(a))-(d) or (f).							
1.⊠ Certified copies of the priority documents	s have been received.								
2. Certified copies of the priority documents		on No							
3. Copies of the certified copies of the prior	ity documents have been receive	ed in this National Stage							
application from the International Bureau	, , ,								
* See the attached detailed Office action for a list of the certified copies not received.									
Attachment(s)									
1) Notice of References Cited (PTO-892)	4) ☐ Interview Summary Paper No(s)/Mail Da								
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) 🔲 Notice of Informal F	Patent Application (PTO-152)							
Paper No(s)/Mail Date <u>09/25/2003</u> .	6)								

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 1. Claims 1 & 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurabayashi et al. (# US 5618338).

Kurabayashi et al. discloses an inkjet recording method and an apparatus (figure: 4) using an ink set including a four color ink and one colorless ink (figure: 8; column: 6, line: 38-41), and the color ink and the colorless ink contains a betaine compound (column: 4, line: 65-66) in an amount of from 0.05 to 20% by weight (column: 5, line: 60-66). They also disclose that the ink including a dye dissolved in water or an organic solvent (column: 6, line: 52-65; column: 7, line: 4-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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2. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurabayashi et al. (# US 5618338) in view of Ma et al. (# EP 0924272).

Kurabayashi et al. teaches all the limitation of the ink set except that the betaine compound is represented by the following formula.

wherein R_1 , R_2 and R_3 each represents an alkyl group, an aryl group or a heterocyclic group, at least two of R_1 , R_2 and R_3 may be linked with each other to form a ring structure; L represents a divalent linking group; and at least one of R_1 , R_2 , R_3 and L is a group having from 8 to 40 carbon atoms and at least one of R_1 , R_2 , R_3 is a linear alkyl group having from 8 to 40 carbon atoms.

Ma et al. teaches that to alleviating the mottle, and smear resistance printed image, ink set includes, surfactant, which is betaine compound, and which represents the following formula ([0007],[0025]).

$$R_1 = \begin{pmatrix} 2 \\ 2 \\ -1 \\ 0 \end{pmatrix}$$

wherein $x\approx 1.4$: R_1 is C_9 : C_{22} alkyl, aryl, or sikylaryl, linear or branched, and may contain $-0...N_1$. $-S_1$. $-C_1(0)$. $-C_1(0)$ 0. $-C_1(0)$ 0. $-C_1(0)$ 0. $-C_1(0)$ 2. $-C_1(0)$ 3. $-C_1(0)$ 4. $-C_1(0)$ 4. $-C_1(0)$ 5. $-C_1(0)$ 5. $-C_1(0)$ 6. $-C_1(0)$ 7. $-C_1(0)$ 8. $-C_1(0)$ 8. $-C_1(0)$ 8. $-C_1(0)$ 8. $-C_1(0)$ 9. $-C_1(0)$ 9.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the betaine compound of Kurabayashi et al. by the

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aforementioned teaching of Ma et al. in order to have a mottle free and smear

resistance printed image.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-

2152. The examiner can normally be reached on 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Manish S. Shah Examiner

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MSS 7/15/04

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Notice of References Cited Application/Control No. 10/600,831 Examiner Manish S. Shah Applicant(s)/Patent Under Reexamination TAGUCHI ET AL. Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	Α	US-5,618,338	04-1997	Kurabayashi et al.	347/100
	В	US-			
	O	US-			
	ם	US-			
	E	US-			
	F	US-			
	G	US-			
	Н	US-			
	1	US-			
	J	US-			
	κ	US-			
	L	US-			
	М	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
X	Z	EP 924272 A1	06-1999	European Patent	MA et al.	C09D 11/00
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	<u>a</u>					
	σ					
	R					
	S					
	Т					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

*Substitute for Form 1449 A & B/PTO

Sheet

INFORMATION DISCHARGE STATEMENT BY APPLICANT

of 1

(use as many sheets as necessary)

Complete if Known					
Application Number	10/600,831				
Confirmation Number	6941				
Filing Date	June 23, 2003				
First Named Inventor	Toshiki TAGUCHI				
Art Unit	3617				
Examiner Name	Not yet assigned				
Attorney Docket Number	Q76239				

	U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Document	Number	Publication Date MM-DD-YYYY			
		Number	Kind Code ² (if known)		Name of Patentee or Applicant of Cited Document		
MI		US 5,973,026	A	10/26/1999	Burns et al.		
me		US 6,039,793	Α	3/21/2000	Gundlach et al.		
M	r ,	US 5,540,765	Α	7/30/1996	Gundlach et al.		
		US					
		US					
		US					
		US					
		US					
		US					

FOREIGN PATENT DOCUMENTS								
Examiner	Cite No.'	Foreign Patent Document			Publication Date	Name of Patentee or		
Initials*		Country Code ³	Number ⁴	Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Translation	
Me		EP.	0 924 272	Al	6/23/1999		English	
M		EP	1 236 778	Al	9/4/2002		English	
me		EP	1 122 288	AI	8/8/2001		English	
me		JP	2000-135854	А	5/16/2000	-	Derwent Abstract	
psh		JP	2003-12980	A	1/15/2003		English translations of the claims	
post		1b ⁻	2003-12981	A	1/15/2003	_	English translations of the claims	
				 	 			
			 	 	 			

		NON PATENT LITERATURE DOCUMENTS				
Examiner Initials* Cite No. luctude name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.						
ma	.	European Search Report dated July 29, 2003				

Examiner Signature	me	Date Considered	7)	151	04	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

^{&#}x27;Applicant's unique citation designation number (optional). 'See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 'Applicant is to indicate here if English language Translation is attached.

[Page 1 of 1]



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